UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

Fax Cover Sheet

Date: 14 Sep 2007

To: Paul Levy	**From:** Jason Whipkey
Application/Control Number: 09/700,140	**Art Unit:** 2622
Fax No.: (212) 588-0500	**Phone No.:** (571) 272-7321
Voice No.: (212) 588-0800	**Return Fax No.:** (571) 273-7321
Re: Examiner's Amendment	**CC:**

☐ **Urgent** ☐ **For Review** ☐ **For Comment** ☒ **For Reply** ☐ **Per Your Request**

Comments:
Mr. Levy-

Please find attached my proposed Examiner's Amendment to the claims. To expedite the allowance of this case, please fax any response to (571) 273-7321 instead of the central fax number.

Thank you,
Jason Whipkey

Number of pages 2 including this page

PROPOSED EXAMINER'S AMENDMENT

The application has been amended as follows:

- In claim 3 (now renumbered claim 2) on lines 1-2, replace "in claim 2" with "in claim 1".
- In claim 4 on line 18, replace "conversion unit" with "conversion step".
- In claim 4 on line 19, replace "selector unit" with "selection step".
- In claim 5 after line 10, insert "a selection step of selecting the entirety or the portion of the picture image stored at the memory step in correspondence with the request received at the communication step; and".
- In claim 5 on line 18, replace "conversion unit" with "conversion step".
- In claim 5 on line 19, replace "selector unit" with "selection step".
- In claim 6 on line 15, delete "selected by the selector unit".
- In claim 9 on line 3, replace "of block" with "of a block".
- In claim 10 on line 13, replace "conversion unit" with "conversion step".
- In claim 10 on line 14, delete "selected by the selector unit".
- In claim 11 on line 15, replace "conversion unit" with "conversion step".
- In claim 11 on line 16, delete "selected by the selector unit".
- In claim 12 on line 14, delete "and".
- In claim 12 after line 14, insert "a classification unit configured to carry out classification on every predetermined unit of the picture data; and".
- In claim 13 on line 20, replace "the high quality" with "a high quality".

FROMMER LAWRENCE & HAUG LLP
745 Fifth Avenue
New York, New York 10151
Telephone: (212) 588-0800
Facsimile: (212) 588-0500
E-mail: Firm@flhlaw.com

FACSIMILE COVER LETTER

To:	Examiner Jason Whipkey
Firm:	U.S. Patent and Trademark Office Art Unit 2622
Facsimile:	(571) 273-7321
From:	Paul A. Levy
Date:	Septmeber 25, 2007
Re:	FLH Ref No.: 450101-02537 Serial No.: 09/700,140
Number of Pages: (including cover page)	10

If you do not receive all pages or are unable to read the transmission, please call (212) 588-0800.

Re: Proposed Claim Amendments for Examiner's Amendment

Please note, in addition to the changes we discussed, included are additional corrections of minor grammatical errors in claims 1, 4, 5 and 10-13.

Thank you,

Paul A. Levy
Reg. No. 45,748

Applicant(s)	:	Tetsujiro KONDO, et al.
Serial No.	:	09/700,140
Filed	:	February 5, 2001
Examiner	:	Jason T. Whipkey

Proposed Amendments for Examiner's Amendment

Amendments indicated are incremental from Applicants' preliminary amendment filed 09/04/2007 with a Request for Continued Examination.
All claims are listed.

1. (Currently Amended) A picture providing apparatus adapted to input distorted picture image in which a predetermined range is collectively imaged from an image pick-up unit to provide the entirety or a portion of the picture image in accordance with request of a picture image display unit, the apparatus including:

a communication unit configured to receive a request for transmission of picture image from the picture image display unit and ~~for transmitting~~ to transmit the entirety or the portion of the picture image from which distortion has been eliminated to the picture image display unit;

a memory unit configured to store the picture image inputted from the image pick-up unit;

selector unit configured to select the entirety or the portion of the picture image stored in the memory unit in correspondence with the request that the communication unit has received; and

picture image conversion unit configured to both eliminate distortion of the selected entirety or the portion of the picture image and convert the selected entirety or portion into high quality picture image with increased resolution in a single step,

wherein the picture image conversion unit eliminates distortion of the entirety or a portion of the picture image selected by the selector unit and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.

2. (Canceled)

3. (Currently Amended) The picture providing apparatus as set forth in claim [[2]] 1, wherein the picture image conversion unit reduces a number of bits of pixel value of pixels of a block or blocks for classification by ADRC processing.

4. (Currently Amended) A picture providing method for a picture providing apparatus adapted to input distorted picture image in which a predetermined range is collectively imaged from an image pick-up unit to provide the entirety or a portion of the picture image in accordance with request of a picture display unit, the method including:

a communication step of receiving request for transmission of picture image from the picture image display unit and of transmitting the entirety or the portion of the picture image from which distortion is eliminated;

a memory step of storing the picture image inputted from the image pick-up unit;

a selection step of selecting the entirety or the portion of the picture image stored at the memory step in correspondence with the request received at the communication step; and

a picture image conversion step ~~for~~ of both eliminating distortion of the selected entirety or the portion of the picture image and ~~for~~ of converting the selected entirety or portion into high quality picture image with increased resolution in a single step,

wherein the picture image conversion ~~unit~~ step eliminates distortion of the entirety or a portion of the picture image selected by the ~~selector unit~~ selection step and converts such picture

image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.

5. (Currently Amended) A computer-readable medium having recorded thereon a program that, when executed on a computer, causes the computer to perform the method comprising:

a communication step of inputting distorted picture image in which a predetermined range is collectively imaged from an image pick-up unit to receive request for transmission of picture image from a picture image display unit to a picture providing unit for providing an entirety or a portion of the picture image in accordance with request of the picture image display unit, and of transmitting the entirety or the portion of the picture image from which distortion is removed to the picture image display unit;

a memory step of storing the picture image inputted from the image pick-up unit;

a selection step of selecting the entirety or the portion of the picture image stored at the memory step in correspondence with the request received at the communication step; and

a picture image conversion step ~~for~~ of both eliminating distortion of the selected entirety or the portion of the picture image and ~~for~~ of converting the selected entirety or portion into high quality picture image with increased resolution in a single step,

wherein the picture image conversion ~~unit~~ step eliminates distortion of the entirety or a portion of the picture image selected by the ~~selector unit~~ selection step and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.

6. (Currently Amended) A picture processing apparatus comprising:

an extraction unit configured to extract a feature quantity every predetermined unit of picture data having distortion;

a classification unit configured to carry out classification on every predetermined unit of the picture data in accordance with the feature quantity extracted by the extraction unit; and

a picture image conversion unit configured to both correct the distortion of the picture data in accordance with result of the classification and to convert the picture data into high quality picture image with increased resolution in a single step,

wherein the picture image conversion unit eliminates distortion of the entirety or a portion of the picture image ~~selected by the selector unit~~ and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.

7. (Previously Presented) The picture processing apparatus as set forth in claim 6, which further comprises an image pick-up unit configured to image the picture data having distortion.

8. (Previously Presented) The picture processing apparatus as set forth in claim 6, wherein the picture image conversion unit eliminates distortion of the picture image having distortion by classification adaptive processing and converts it into high quality picture image.

9. (Currently Amended) The picture processing apparatus as set forth in claim 6, wherein the classification unit reduces the number of bits of pixel value of pixels of a block for classification by the ADRC processing.

10. (Currently Amended) A picture processing method including:

an extraction step of extracting feature quantity every predetermined unit of picture data having distortion;

a classification step of carrying out classification every predetermined unit of the picture data in accordance with feature quantity extracted by the extraction step; and

a picture image conversion step of both correcting the distortion of the picture data in accordance with result of the classification and ~~for~~ of converting the picture data into high quality picture image with increased resolution in a single step,

wherein the picture image conversion ~~unit~~ step eliminates distortion of the entirety or a portion of the picture image ~~selected by the selector unit~~ and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.

11. (Currently Amended) A computer-readable medium having recorded thereon a program that, when executed on a computer, causes the computer to perform the method comprising:

an extraction step of extracting feature quantity every predetermined unit of picture data having distortion;

a classification step of carrying out classification every predetermined unit of the picture data in accordance with the feature quantity extracted by the extraction step; and

a picture image conversion step of both correcting the distortion of the picture data in accordance with result of the classification step and ~~for~~ of converting the picture data into high quality picture image with increased resolution in a single step,

wherein the picture image conversion ~~unit~~ step eliminates distortion of the entirety or a portion of the picture image ~~selected by the selector unit~~ and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.

12. (Currently Amended) A picture providing system comprising an image pick-up unit, a picture providing unit, and a picture display unit,

wherein the image pick-up unit includes image pick-up unit configured to collectively image picture image of a predetermined range,

wherein the picture providing unit includes:

a first communication unit configured to receive a request for transmission of picture image from the picture display unit and ~~for transmitting~~ to transmit, to the picture display unit, the entirety or a portion of the picture image from which distortion has been eliminated so that there is provided high quality picture image;

a memory unit configured to store the picture image inputted from the image pick-up unit;

a selector unit configured to select the entirety or a portion of the picture image that the memory unit stores in correspondence with the request that the first communication unit has received; ~~and~~

a classification unit configured to carry out classification on every predetermined unit of the picture data; and

a picture image conversion unit configured to both correct the distortion of the picture data in accordance with result of the classification and to convert the picture data into high quality picture image with increased resolution in a single step,

wherein the picture image conversion unit eliminates distortion of the entirety or a portion of the picture image selected by the selector unit and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing,

wherein the picture display unit includes:

second communication unit configured to transmit a request for transmission of the picture image to the picture providing unit and ~~for receiving~~ to receive, from the picture providing unit, the entirety or a portion of the picture image from which distortion is eliminated so that there is provided high quality picture image.

13. (Currently Amended) A picture providing system comprising an image pick-up unit, a picture providing unit and a picture processing unit,

wherein the image pick-up unit includes

an image pick-up unit configured to collectively image picture image of a predetermined range,

wherein the picture providing unit includes:

a first communication unit configured to receive a request for transmission of picture image from the picture processing unit and ~~for transmitting~~ to transmit the entirety or a portion of the picture image to the picture processing unit;

a memory unit configured to store the picture image inputted from the image pick-up unit; and

a selector unit configured to select the entirety or a portion of the picture image that the memory unit stores in correspondence with the request that the first communication unit has received, and

wherein the picture processing unit includes:

a second communication unit configured to transmit a request for transmission of the picture image to the picture providing unit and ~~for receiving~~ to receive the entirety or a portion of the picture image from the providing unit; and

a picture image conversion unit configured to carry out both conversion into ~~the~~ a high quality picture image and converting the picture image into high quality picture image with increased resolution in a single step,

wherein the picture image conversion unit eliminates distortion of the entirety or a portion of the picture image selected by the selector unit and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.

14. (Previously Presented) The picture providing apparatus as set forth in claim 1, wherein the high quality picture image has a resolution higher than that before the converting.